

AMENDMENTS TO THE CLAIMS

1. (Currently amended) A method of inhibiting proliferation of a bacterial population of a skin injury or surface lesion of a human or animal patient, the method comprising contacting the surface of the skin injury or the surface lesion with an antibacterial composition, wherein the antibacterial composition consists of a pharmaceutically acceptable antibacterial agent, a pharmaceutically acceptable chelating agent selected from EDTA, TRIEN and diethyltriamin-pentaacetic acid (DPTA), Tris (hydroxymethyl) aminomethane (TRIZMA Base), and a pharmaceutically acceptable carrier, wherein the chelating agent and the antibacterial agent have concentrations selected to allow synergistic cooperation between said antibacterial agent and said chelating agent to inhibit proliferation of the bacterial population of the skin injury or the surface lesion of the human or animal patient.

2. (Previously presented) The method of Claim 1, further comprising the steps of:

- (a) identifying the bacterial population;
- (b) identifying an antibacterial agent capable of inhibiting proliferation of the bacterial population;
- (c) determining the minimal inhibitory concentration (MIC) and the fractional inhibitory concentration (FIC) values for the antibacterial agent and the chelating agent; and
- (d) selecting concentrations of the antibacterial agent and the chelating agent of the antibacterial composition to allow synergistic cooperation between said antibacterial agent and said chelating agent to inhibit proliferation of the bacterial population of the skin injury or the surface lesion of the human or animal patient.

3-4. (Canceled)

5. (Currently amended) The method of Claim 1, wherein the pharmaceutically acceptable chelating agent is ~~ethylenediaminetetraacetic~~ ethylenediaminetetracetic acid (EDTA).

6. (Original) The method of Claim 1, wherein the pharmaceutically acceptable chelating agent is triethylene tetramine dihydrochloride (TRIEN).

7. (Previously presented) The method of Claim 1, wherein the pharmaceutically acceptable antibacterial agent is an antibiotic selected from the group consisting of a β -lactam, an aminoglycoside, a vancomycin, a bacitracin, a macrolide, an erythromycin, a lincosamide, a chloramphenicol, a tetracycline, a gentamicin, an amphotericin, a cefazolin, a clindamycin, a mupirocin, a nalidixic acid, a sulfonamide and trimethoprim, a streptomycin, a rifampicin, a metronidazole, a quinolone, a novobiocin, a polymixin and a Gramicidin.

8. (Previously presented) The method of Claim 7, wherein the pharmaceutically acceptable antibacterial agent is further selected from the group consisting of a β -lactam, an aminoglycoside, a vancomycin, a chloramphenicol, an erythromycin, a tetracycline, gentamicin, nalidixic acid and a streptomycin.

9. (Previously presented) The method of Claim 1, wherein the pharmaceutically acceptable antibacterial agent is oxytetracycline.

10. (Previously presented) The method of Claim 1, wherein the pharmaceutically acceptable antibacterial agent is amikacin.

11. (Previously presented) The method of Claim 1, wherein the pharmaceutically acceptable antibacterial agent is neomycin.

12. (Previously presented) The method of Claim 1, wherein the pharmaceutically acceptable antibacterial agent is biologically active against a Gram-negative bacterial species.

13. (Previously presented) The method of Claim 7, wherein the pharmaceutically acceptable antibacterial agent is biologically active against a Gram-positive bacterial species.

14. (Previously presented) The method of Claim 1, wherein the bacterial population is a bacterial infection comprising at least one Gram-negative bacterial genus selected from the group consisting of *Aeromonas*, *Pseudomonas*, *Escherichia*, *Enterococcus*, *Yersinia*, *Vibrio*, *Flexibacter*, *Nocardia*, *Flavobacterium*, *Edwardsiella* and *Cytophyagia*.

15. (Previously presented) The method of Claim 1, wherein the bacterial population is a bacterial infection comprising at least one Gram-positive bacterial genus selected from the group consisting of *Bacillus*, *Staphylococcus*, and *Mycobacterium*.

16-17. (Canceled)

18. (Original) The method of Claim 1, wherein the skin injury is a burn.

19. (Original) The method of Claim 1, wherein the skin injury is an abrasion.

20. (Original) The method of Claim 1, wherein the skin injury is an ulcer.

21. (Original) The method of Claim 1, wherein the surface lesion is a lesion of the oral mucosa of a human or animal patient.

22. (Previously presented) The method of Claim 1, wherein the antibacterial composition is a mouthwash for inhibiting the proliferation of a bacterial population of the oral cavity of a human or animal.

23-55. (Canceled)

56. (Currently amended) A method of inhibiting proliferation of a bacterial population of a skin injury or surface lesion of a human or animal patient, the method comprising contacting the surface of the skin injury or the surface lesion with an antibacterial composition, wherein the antibacterial composition consists of a pharmaceutically acceptable antibacterial agent, a pharmaceutically acceptable chelating agent selected from EDTA, TRIEN and diethylenetriamin-pentaacetic acid (DPTA), Tris (hydroxymethyl) aminomethane (TRIZMA Base), and a pharmaceutically acceptable carrier, and does not include TGF- β , wherein the chelating agent and the antibacterial agent have concentrations selected to allow synergistic cooperation between said antibacterial agent and said chelating agent to inhibit proliferation of the bacterial population of the skin injury or the surface lesion of the human or animal patient.

57. (Previously presented) The method of Claim 56, further comprising the steps of:

(a) identifying the bacterial population;

- (b) identifying an antibiotic capable of inhibiting proliferation of the bacterial population;
- (c) determining the minimal inhibitory concentration (MIC) and the fractional inhibitory concentration (FIC) values for the antibiotic and the chelating agent; and
- (d) selecting concentrations of the antibiotic and the chelating agent to allow synergistic cooperation between said antibacterial agent and said chelating agent to inhibit proliferation of the bacterial population of the skin injury or the surface lesion of the human or animal patient.

58. (Currently amended) A method of inhibiting proliferation of a bacterial population of a skin injury or surface lesion of a human or animal patient, the method comprising contacting the surface of the skin injury or the surface lesion with an antibacterial composition, wherein the antibacterial composition consists of EDTA, Tris (hydroxymethyl) aminomethane (TRIZMA Base), and a pharmaceutically acceptable carrier, and does not include TGF- β , wherein the chelating agent and the antibacterial agent have concentrations selected to allow synergistic cooperation between said antibacterial agent and said chelating agent to inhibit proliferation of the bacterial population of the skin injury or the surface lesion of the human or animal patient.

59. (Previously presented) The method of Claim 58, further comprising the steps of:
- (a) identifying the bacterial population;
 - (b) identifying an antibiotic capable of inhibiting proliferation of the bacterial population;
 - (c) determining the minimal inhibitory concentration (MIC) and the fractional inhibitory concentration (FIC) values for the antibiotic and the chelating agent; and
 - (d) selecting concentrations of the antibiotic and the chelating agent to allow synergistic cooperation between said antibacterial agent and said chelating agent to inhibit

proliferation of the bacterial population of the skin injury or the surface lesion of the human or animal patient.

60. (Currently amended) A method of inhibiting proliferation of a bacterial population of a skin injury or surface lesion of a human or animal patient, the method comprising contacting the surface of the skin injury or the surface lesion with an antibacterial composition, wherein the antibacterial composition consists of a pharmaceutically acceptable antibacterial agent, a pharmaceutically acceptable chelating agent selected from EDTA, TRIEN and diethylenetriamin-pentaacetic acid (DPTA), Tris (hydroxymethyl) aminomethane (TRIZMA Base), and a pharmaceutically acceptable carrier, and does not include TGF- β , wherein the chelating agent and the antibacterial agent have concentrations selected to allow synergistic cooperation between said antibacterial agent and said chelating agent to inhibit proliferation of the bacterial population of the skin injury or the surface lesion of the human or animal patient, and wherein the antibacterial composition is delivered to the skin injury or skin lesion as an aqueous wash.

61. (Currently amended) A method of inhibiting proliferation of a bacterial population of a skin injury or surface lesion of a human or animal patient, the method comprising contacting the surface of the skin injury or the surface lesion with an antibacterial composition, wherein the antibacterial composition consists of a pharmaceutically acceptable antibacterial agent, a pharmaceutically acceptable chelating agent selected from EDTA, TRIEN and diethylenetriamin-pentaacetic acid (DPTA), Tris (hydroxymethyl) aminomethane (TRIZMA Base), and a pharmaceutically acceptable carrier, and does not include TGF- β , wherein the chelating agent and the antibacterial agent have concentrations selected to allow synergistic cooperation between said antibacterial agent and said chelating agent to inhibit proliferation of the bacterial population of the skin injury or the surface lesion of the human or animal patient.

62. (Currently amended) A method of inhibiting proliferation of a bacterial population of a skin injury or surface lesion of a human or animal patient, the method comprising

contacting the surface of the skin injury or the surface lesion with an antibacterial composition, wherein the antibacterial composition consists of a pharmaceutically acceptable antibacterial agent, a pharmaceutically acceptable chelating agent selected from EDTA, TRIEN and diethylenetriamin-pentaacetic acid (DPTA), Tris (hydroxymethyl) aminomethane (TRIZMA Base), and a pharmaceutically acceptable carrier, and does not include TGF- β , wherein the chelating agent and the antibacterial agent have concentrations selected to allow synergistic cooperation between said antibacterial agent and said chelating agent to inhibit proliferation of the bacterial population of the skin injury or the surface lesion of the human or animal patient, and wherein the antibacterial composition is delivered to a medical dressing.